

4. MYRRHIDENDRON DONNELL-SMITHII Coulter & Rose, Bot. Gaz. 19: 466. 1894.

A small tree, 3.6 to 4.8 m. high; trunk 7.5 cm. in diameter; leaves large, 30 cm. or more long, ternately compound; leaflets ovate to lanceolate, 2.5 to 5 cm. long, acute, sharply and often irregularly serrate, the teeth more or less mucronate-tipped, glabrous, shining and impressed-veiny above, dull and paler beneath and conspicuously reticulate; petiolules with a prominent stipular ring which is more or less glandular-tufted; petioles large, inflated; peduncles short; involucre few-leaved; involucels numerous, 3 or 4-toothed or cleft near the apex, scarious-margined and strongly purplish-veined; inflorescence more or less glandular-puberulent; rays numerous, rarely equal; pedicels 8 to 10 mm. long; fruit linear, 10 to 12 mm. long, glabrous.

Type locality: Lava beds at the summit of the Volcano Irazú, Costa Rica.

Besides the type specimen this plant has been collected in Costa Rica on the Volcán de Turrialba, 1924, by Paul C. Standley (no. 35056), and in 1899 by H. Pittier (no. 13214); on the Volcán Poás, 1924, by Paul C. Standley (no. 348681), and, 1890, by H. Pittier (no. 2012); and on Cerro de las Vueltas, 1925-26, by Paul C. Standley (no. 43970).

BOTANY.—*Two new grasses from South America.*¹ A. S. HITCHCOCK,
Bureau of Plant Industry.

Recently a package of grasses was received from the Museu Nacional do Rio de Janeiro, Brazil, which included many interesting specimens. Among them was an undescribed species of *Olyra* which I take pleasure in naming for the Director of the Museum, Dr. Alberto José de Sampaio, who sent me the specimens and who collected most of them, though this interesting species of *Olyra* was collected by José Vidal.

The new species, described below, differs conspicuously from all other species of *Olyra* in the condensed inflorescence and the villous-ciliate spikelets.

Olyra Sampaiana Hitchc., sp. nov.

Plant perennial; culm erect, retrorsely scaberulous, pubescent below the panicle, about 35 cm. tall, naked below, the sheaths bladeless, bearing two foliage leaves above, the nodes appressed-pubescent; sheaths slightly retrorsely scaberulous, ciliate on the overlapping margin, 6 to 7 cm. long; ligule 1 to 2 mm. long, truncate; blades thin, oblong-lanceolate, abruptly rounded below into a short puberulent petiole about 2 mm. long, gradually narrowed to an acuminate apex, glabrous on the upper surface, antrorsely scabrous beneath, 13 to 15 cm. long, 4.5 to 5 cm. wide, the principal nerves about 5 pairs; panicle condensed, oblong, 6 cm. long, 1 cm. wide, staminate

¹ Received March 15, 1927.

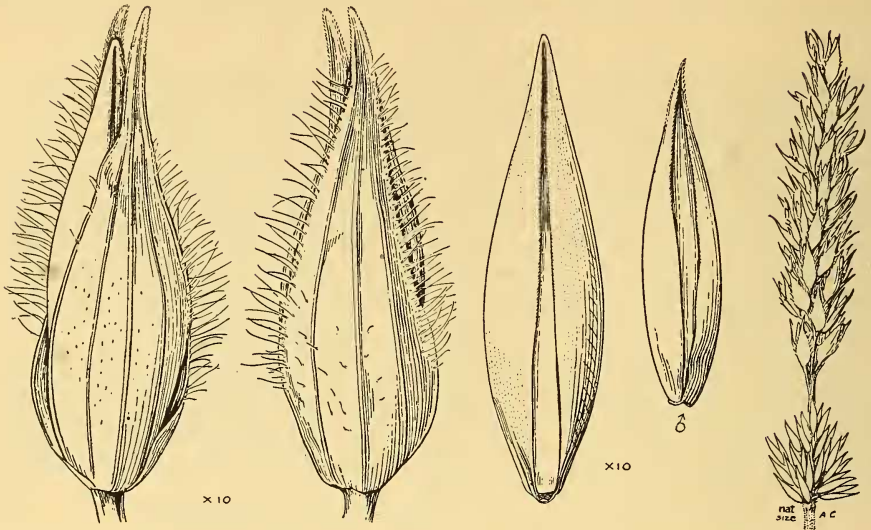


Fig. 1.—*Olyra Sampaiana*, 2 views of pistillate spikelet, fruit, and staminate spikelet, $\times 10$ dia.: panicle, nat. size.



Fig. 2.—*Trisetum bulbosum*, spikelet, floret, and palea, $\times 5$ dia.

below, pistillate above, interrupted between, the staminate portion about 1 cm. long; staminate spikelets narrow, about 4 mm. long, acuminate; pistillate spikelets about 2.5 mm. wide, the glume and sterile lemma about equal, 7 mm. long, tawny, rather thick and firm, 5-nerved, the outer nerves forming a thickened margin, the glume minutely pubescent, with a conspicuous fringe of hairs near the margin and somewhat short-villous on the back below, the sterile lemma similar but less villous and with scant marginal hairs; fruit narrow, 6 mm. long, 1.7 mm. wide, acuminate, with a blunt tip, laterally compressed at base, glabrous, dull white or tawny, under a lens very obscurely pitted, the margins nearly meeting over the palea along the upper part.

Type in the United States National Herbarium, no. 1,297,351, collected at Reeve, State of Espirito Santo, Brazil, December 6, 1924, by José Vidal (no. 44). I have seen no other specimen.

The Grass Herbarium recently received a package of Chilean grasses from Brother Claude Joseph who has sent many plants from Chile to the United States National Herbarium. In this package was the specimen of *Trisetum* which is described below as a new species.

Trisetum bulbosum Hitchc., sp. nov.

Perennial; culms erect, glabrous, 30 to 50 cm. tall, the base thickened to a bulb 3 to 6 mm. thick; sheaths glabrous; ligule thin, rounded and lacerate, 1 to 2 mm. long, decurrent; blades glabrous, scaberulous, flat, becoming somewhat involute or folded, mostly not more than 5 cm. long, the 4 to 6 cauline ones gradually shorter, 0.5 to 1.5 mm. wide; panicle narrow, almost spikelike, 8 to 10 cm. long, pale, the branches appressed, the axis and branches scabrous; spikelets narrow, about 1 cm. long, mostly 3-flowered, the rachilla prolonged as a small bristle, the third floret smaller than the others; glumes narrow, the first 6 to 7 mm. long, 1 to 3-nerved, the second a little wider and a little longer (about 1 mm.) than the first, 3 to 5-nerved; first lemma narrow, about 1 cm. long, rather obscurely 3-nerved, minutely scaberulous below, the callus antrorsely pubescent, 0.5 mm. long (being the first rachilla-joint disarticulating at the base), the upper half scarious, the apex divided into two delicate pointed teeth 1 mm. long, the awn emitted from about the middle of the back, 12 to 15 mm. long, geniculate, flexuous; palea small and narrow, about half as long as the lemma, finely ciliate on the nerves; second lemma similar to the first but a little smaller, the callus slender, sharp-pointed, about 2 mm. long, antrorsely pilose (consisting of the second joint of the rachilla disarticulating near the base), the short pilose base of the next rachilla joint remaining behind the palea; anthers 2 mm. long.

Type in the United States National Herbarium, no. 1,297,352, collected at Concepción (San Pedro), Chile, October 30, 1926, by Brother Claude Joseph (no. 4607). I have seen no other specimen.

This species is easily distinguished by the small bulbs at the base of the culm. It differs from other species of *Trisetum* in the disarticulation of the rachilla. Usually, in this and allied genera, the rachilla disarticulates at the summit of the joint or internode thus leaving only a short callus at the base of the floret, the rachilla-joint above being persistent along the back of the palea. In *Trisetum bulbosum* the disarticulation takes place at the base of the joint, leaving the joint above as a long sharp callus projecting below the floret.